DEVELOPMENT OF LIQUIDITY MANAGEMENT INSTRUMENTS: CHALLENGES AND OPPORTUNITIES

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1.0 Introduction

Liquidity management is part of the larger risk management framework of the financial services industry, which concerns all financial institutions whether they are conventional or Islamic. Studying liquidity management issues is a critical but complex subject. Failure to address the issue may lead to dire consequences, including banking collapse, and by extension, the stability of the financial system. In fact, most bank failures are due to difficulties managing their liquidity problems.[1] This is also the reason why regulators are very concerned with the liquidity position of financial institutions and current thinking of regulators centre around the strengthening of liquidity framework.

For Islamic financial institutions, liquidity management is more unique due to the fact that most available conventional instruments used for liquidity management are interest-based, therefore, not sharia'a compatible. It follows, then, that in the absence of shariah compatible instruments, there can only be limited development of the Islamic interbank money market. The money market is an important component of the liquidity management framework as it is the first avenue to place or borrow short term funds. This gives more reason why addressing liquidity management is very critical to Islamic banks since IFI faces bigger challenges due to sharia'a considerations and the nature of their operations.

[1] Mark Largan *Banking Operation* 2nd edition Chartered Institute of Bankers, United Kingdom, 2000 p.28.

Traditionally, many Islamic banks rely heavily on commodity murabahah for short-term investment and liquidity management. However, the technique, while providing IFI's with a window to invest their short term funds, leads to an inefficient use of funds due to its low returns. Therefore, the challenge is to look for alternative instruments and solutions.

Recently, several new sharia'a compatible instruments have been introduced to the market e.g. several applications of the sukuk structure. In other developments, several Islamic alternatives to the conventional inter-bank market have been advanced by Muslim scholars which can be explored further for future implementation. The legal and institutional infrastructure for the development of an Islamic secondary market, with liquidity management top in agenda, have been strengthen by the establishment of the International Islamic Financial Market (IIFM) which has been given the functions of developing an active secondary market in sharia'a compatible instruments with a view of facilitating the liquidity management functions of the IFI's.

This paper will try to address the above issues, the main aspects of liquidity management in Islamic banks nowadays, and the way forward.

2. 0 Definition and Concept of Liquidity Management

Definition

The concept of liquidity risk revolves around the ability of a bank to maintain sufficient funds to meet its commitments, which may, in turn, be related to its ability to attract deposits. It is about the ability of matching the maturity of assets and liabilities daily and coping with any short-term pressures that may arise in the process of ensuring the assets are fully funded.[2]

Therefore, managing liquidity is one of the more important functions of bank management.

However, the question that may arise is that if financial instruments, interbank market and the Central banks acting as lender of last resort, form the infrastructure for addressing liquidity management issues in the conventional system, to what extent are they in compliance with sharia'a principles, and if not, what is the alternative?

3.0 Liquidity Management in Islamic Banks

As banking institutions, Islamic banks also have to meet their liquidity needs and obligations to ensure the smooth running of their business, as it is the case with their conventional counterparts. However, the very nature of Islamic banks with their objective

[2] Ibid.

of avoiding riba in any form, have additional issues to address in order to meet their liquidity needs in a sharia'a complaint manner.

In the conventional banking system with a well-developed interbank market, there are a variety of instruments available that the banks can avail of. Frequently, the interbank market works on the basis of unsecured inter-bank lines for anything from overnight funds to six months, nine months and twelve months, after which the market gets very thin. Access to interbank money markets for short-term borrowings gives considerable flexibility to a bank to adjust its short-term cash flow. Secondary markets in financial instruments have also become an important source for liquidity management, which banks can rely on manage their liquidity. However, for Islamic banks, the instrument has to asset based; therefore, it is more closely related to the debt (bond) capital markets. Herein lies the challenge, as at present, there is hardly an Islamic bond market to speak of at a global level.

Generally, a bank can access the interbank money market for short-term requirements and to cover mismatches in maturity. Additionally, as an insurance against being unable to cover an expected shortage of cash flow in the interbank market, a bank could hold a portfolio of marketable securities that can be quickly liquidated in case of need.[3]

However, the above conventional mechanisms of liquidity management namely interbank market, secondary market financial instruments and discount window from the Central

[3] Robert Hudson and Others, *Treasury Management* third Edition, the Chartered Institute of Bankers, United Kingdom, 1998, p.37.

bank as lender of last resort are all based on interest and therefore, not permissible for Islamic banks.

Thus, the causes of liquidity problems in Islamic banks and financial institutions could be summarized as follow:

1. Small number of participants
2. The slow development of Islamic financial instruments
3. No Islamically acceptable inter-bank bank market
4. The absence of a liquid Islamic secondary market.
5. No lender of last resort facilities.
6. Different Shari'ah interpretation

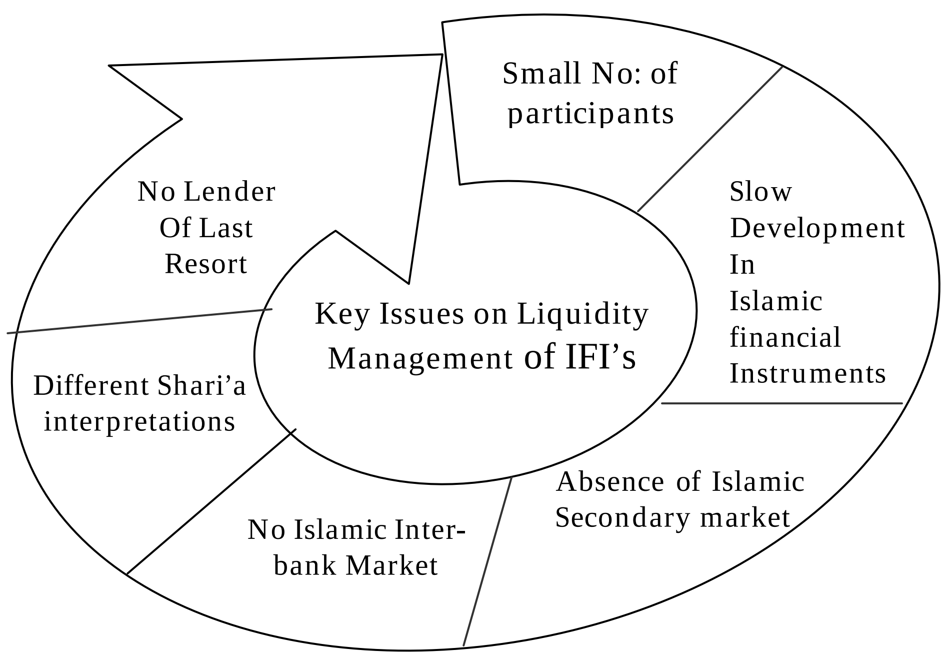


Diagram - 1

4.0 Current Status of Liquidity in Islamic Banks

In general, Islamic banks, especially in the Middle East face excess of liquidity. In a recent study it was discovered that Islamic financial institutions are almost 50 % more liquid as compared to conventional financial institutions. Out of US$ 13.6 billion total assets of Islamic banks in the study US$ 6.3 billion were fund to be in liquid assets.[4]

This excess liquidity means that these liquid assets are either generating no return or a very low one. This is a serious business risk as it negatively affects the competitiveness of the Islamic financial institution as compared to conventional financial institutions.[5]

5.0 Present Practices in Liquidity Management Adopted by Islamic Banks.

5.1. Liquidity Management – Commodity Murabaha

One of the popular modes of investment used by Islamic banks to address the problem of liquidity is commodity murabahah. It is a form of a short-term finance based on murabahah contract and generally used for the buying and selling of commodities in the international market.

(For detailed explanation please refer to Appendix 1)

[4] See Tariqulllah Khan and Habib Ahmed, *Risk Management An Analysis of Issues in Islamic Financial Industry* Islamic Research and Training Institute, Islamic Development Bank, Occasional Paper no.5. 2002, p.147, based on Bahrain Monetary Agency (2001) “Feasibility Study for a liquidity Management Center” Manama, Ernest & Young Consultant.

[5] Ibid.

5.2 Liquidity Management – ABC Islamic Fund

The Fund's overall objective is to provide shareholders with a maximum security, instant liquidity and realistic and consistent rate of profitability. The fund main investments will be made through participation in transactions in ijara, istisna, mudarabah and murabahah.

Shares in fund are valued on a daily basis, based on accruals, by reference to the Net Assets Value (NAV) of the fund's assets and will be bought and sold by customers at the Net Asset Value of the preceding business day. Thus, if a customer's shares in the Fund appreciate in value, the benefit of this appreciation will pass to the customer. However, if a customer's shares in the Fund fall in value, ABC, being a third party, irrevocably and unconditionally guarantees that on the redemption of the shares the customer will receive an amount equal to the price paid for the shares, thereby ensuring that the customer cannot be prejudiced by a fall in value of the Fund's shares.

The arrangement with ABC also helps the fund to manage its own liquidity and participate in attractive deals as and when appropriate opportunities arise. This is achieved through an irrevocable liquidity arrangement with ABC under which it buys and sells shares from the fund as required. The fund concentrates on participating in well – secured deals which provide return to shareholders. It uses conventional money market rates as benchmark to determine the rate of profitability.

5.3 Sukuk al-Salam

The Bahrain Monetary Agency has also issued a series of new Islamic financial instruments designed to broaden the depth and liquidity of the market. One of the instruments is the short-term government bills structured under Salam, having generally a maturity of 91 days. Aluminium has been designed as the underlying asset of the salam contract. The Government of Bahrain will sell aluminium to the buyer. In exchange of the advance payment that will be paid by the Islamic bank(s) the Government of Bahrain will undertake to supply a specified amount of aluminium at a future date. At the same time the Islamic bank(s) will appoint the Government of Bahrain as an agent to market the quantity of aluminium at the time of delivery through its channels of distribution However, salam sukuk are not tradable instruments.

(Please see Appendix 4 – Table 2 – Bahrain Sukuk al Salam)

5.4 Malaysia Islamic Inter-bank Money Market

Bank Negara Malaysia, the Central Bank, introduced the Islamic Inter bank Money Market (IIMM) on January 3, 1994. The scope of activities of the IIMM included the purchase and sale of Islamic financial instruments among market participants (including the Bank), inter bank investment activities through the Mudaraba Inter bank Investment (MII) Scheme and a cheque clearing and settlement system through an Islamic Inter bank Cheque Clearing System (IICCS).

The Islamic financial instruments that are currently being traded in the IIMM on the basis of Bai al Dayn, are the Green bankers acceptances, Islamic accepted bills, Islamic mortgage bonds and Islamic private debt securities.

In addition, financial institutions can sell Government Investment Issues (GIIs) to the Central Bank as and when required to meet their liquidity needs. GIIs are government securities issued on an Islamic basis, which financial institutions can also buy from the Central Bank, depending on availability**.**

Under the mudarabah mechanism for instance, a bank participating in the interest free banking scheme may invest its surplus liquidity funds in another bank. These funds may be invested on the basis of *mudarabah* for a period of investment that may vary from overnight to 12 months on an agreed profit sharing ratio.
(Please see Appendix 4 – Table 6 regarding the volume of Malaysian Islamic Inter-bank Market as reported by Bank Negara Malaysia April 2003)

5.5 Malaysia Islamic Private Debt Securities

It is worth noting that the Malaysia Islamic private debt securities is well developed and estimated at RM 10 to 15 billion. In 2002 the volume of Islamic private debt securities is more than 50% of total bonds issuance in the domestic market which amounted to RM 13.8 billion, more than half of the RM 26.7 billion value of all bonds issued in the period. However, the Islamic private debt securities structured under bay bi al-thaman al-ajil and murabahah are the point of contention among sharia’a scholars.

5.6 Sudanese Musharakah Certificates

The Central Bank of Sudan launched in 1998 the Central Bank Musharakah Certificates (CMCs). It is an equity based instrument which is used against Bank of Sudan ownership in commercial banks. It is used by Bank of Sudan as an indirect instrument to regulate and manage liquidity within the banking system.

n 1999 the Ministry of Finance launched another instrument, called Government Musharkah Certificates (GMCs). They are also musharakah-based instruments that are used against the Ministry of Finance ownership in some profitable public and joint venture enterprise in collaboration with some Islamic Monetary Fund (IMF) staff. The certificates are meant to regulate and manage liquidity within the economy as a whole.[6]

6.0 <u>Islamic Inter-bank Market and Liquidity Management</u>

As mentioned above, instruments available for the conventional inter-bank market and the concept of lender of last resort by central banks are interest-based and therefore, not permissible for Islamic banks to participate. However, some efforts have been made to develop the Islamic alternative.

Three alternatives to the conventional inter-bank market may be considered to provide short-term liquidity to Islamic banks when the need arises.

- First, banks could have an agreement with other banks for mutual financing facilities as practiced by conventional banks, but within the framework of profit loss sharing. Banks which are in need of more resources from others may enter

[6] See, Sabir Mohammad Hassan "Towards Fostering Financial Stability of the Islamic Financial Industry" paper presented at the inauguration of the Islamic Financial Services Board Kuala Lumpur, Malaysia November 2002, p.5.

into mutual agreement of profit loss sharing arrangement. This will allow them to place surplus funds, arrange liquidity when the need arises and balance their short-term assets and liabilities.

- Second, there could be an inter-bank cooperative arrangement to extend reciprocal accommodation to each other on condition that the net use of this facility is zero over a given period.
- Third, the banks could create a common pool at the central bank to provide mutual accommodation. [7]

7.0 Shortcomings of Present Practices

Although commodity murabahah as a short-term investment mechanism addresses some of the problems of liquidity management facing Islamic banks, the mechanism has many shortcomings.

Some of those shortcomings are:

- Flight of capital out of Islamic countries' economies.
- Not contributing to the development of an Islamic secondary market.
- Over reliance on short-term investment.
- Different Shari'ah interpretations and acceptance.
- No universal acceptance.

8.0 Infrastructure for Liquidity Management

Recognising the difficulties faced by IFI's in managing their liquidity, the Central Bank and Monetary Agencies of Malaysia, Indonesia, Brunei Darussalam, Bahrain, Sudan and the Islamic Development Bank got together and developed a concept to offer a solution to the industry.

[7] For more elaboration on this issue see, Umar Chapra, "Mechanics and Operations of an Islamic Financial Market", *Journal of Islamic Banking and Finance*, vol.5, no...3, 1988, 31-36.

9.0 International Islamic Financial Market (IIFM)

The Agreement to establish the IIFM was signed in November 2001 by the Governors of the Central banks /Monetary Agencies Malaysia, Bahrain, Indonesia, Sudan, and the President of the Islamic Development Bank. Its main objective are (1) to spur the establishment and development of an international financial market based on Sharia'a rules and principles. (2) Addressing the issue of liquidity management in Islamic banks (3) developing an active, secondary market is at the core of its mission and (4) creating the environment that will encourage both Islamic and non-Islamic financial institutions to actively participate in a secondary market and the information of new traceable instructions.

Hence, IIFM will act as the focal point for the harmonization of sharia'a interpretations in the global financial market and bridge the gap between the different sharia'a interpretations. This will be achieved through the endorsement of Islamic instruments developed by financial institution by well-known scholars representing different regions sharia'a schools of thought. This will allow, for instance, products developed in Malaysia to be accepted in the Middle East, Indonesia or any other country and vice versa.

IIFM also aims at enhancing the cooperative framework among Islamic financial institutions globally. It will address the problem of lack of awareness of attractive investment opportunities in other markets and facilitating the raising of fund and investment beyond the national borrowing. It will also help in cross listing in different stocks exchanges of member countries such as that of Labuan (Malaysia) and Bahrain, for instance.

In order to streamline rules and practices and to enhance the market effectiveness, IIFM will issue guidelines the issuance of sukuk following international best practice, and for the standardization of dealing and settlement practice for sukuk.

When a critical mass has been achieved, the IIFM will be the "clearing house" of Shari'ah compliant instruments available for liquidity management.

10. Latest Development in Islamic Liquidity Management

Some Practical Examples

Several types of instrument have been introduced recently in form of sukuk or Islamic bonds. Such instruments will help in financing long-term projects and infrastructure development, developing the Islamic capital market and providing tools for liquidity management

10.1 Government of Bahrain Sukuk program

An important development in Bahrain is the introduction of ijara sukuk. Since its introduction in August 2002, a series of seven ijara sukuk issues worth US$ 730 million have been issued so far and it is expected to reach the US 1.0 billion by the end of the year. All seven issues were oversubscribed which demonstrates the ample liquidity in the market and the high demand for Islamic instruments. Although some issues are restricted to the domestic market, a couple of large issues were targeted to the larger Middle East regional market and international markets.

(Please see Appendix 2 for the Structure)
(Please see Appendix 4 – Table 1 - Bahrain Sukuk al Ijara)

10. 2 Malaysian Global Sukuk

One the more innovative instruments issues was the Malaysia Global Sukuk US$ 600 million. Sukuk al-Ijara issue in June 2002. This issue is a truly pioneering issue because it is the first sovereign global sukuk transaction which was largely targeted not only to Middle Eastern Islamic investors but also conventional investors in Europe, Asia & U.S. The issue was listed on the Luxembourg Stock Exchange and Labuan Financial Exchange.

It is interesting to note that there were five major Middle Eastern financial institutions participated as co-managers besides three Asian financial institutions.

Incidentally, the Malaysia Global Sukuk was first issue to be endorsed by the Sharia'a Supervisory Committee of IIFM which to ensure Sharia'a compatibility globally. In total, 51 investors subscribed to the issue, of which 27 were new investors to the Malaysia credit. Geographically, the deal achieved another milestone with 51% of the paper placed in Middle East, followed by 30% to Asia investors with half of this placed to Labuan –based investors. Fifteen percent was taken by European investors and 4% by US investors. The fact that Middle Eastern investors participated in big numbers and auger well for the growth of Islamic capital markets as it has enhanced cooperation between Islamic countries, offered through globally acceptable products, thus fulfilling one of the objectives of the IIFM.

(Please see Appendix 2 for the Structure)
(Please see Appendix 4 – Table 3 - Malaysia Global Sukuk)

10.3 First Global Sukuk

Another important issue in the Islamic Bond experience in Malaysia is Kumpulan Guthrie Bhd sukuk of US$ 150 million, listed at the Labuan International Financial Exchange. The Ijarah sukuk have been assigned a long term foreign currency Islamic capital market rating of BBB+ by Malaysian Rating Corp Bhd. The sukuk are issued to fund the Company acquisition and operation in Indonesia.

(Please see Appendix 4 – Table 4 – First Global Sukuk)

10.4 Islamic Development Bank (IDB) Trust Certificates

The $400 million Islamic Sukuk was issued by Solidarity Trust Services Limited (STSL), a special purpose company incorporated in Jersey Channel Islands. The Islamic Corporation for the Development of Private Sector (ICD) played an intermediary role by purchasing the asset from IDB and selling it to The Solidarity Trust Services Limited (STSL) at the consolidated net asset value. The issue is guaranteed by The Islamic Development Bank's (IDB)

The issue is unique with respect to its issuer, guarantor, arranger and more importantly the innovative structure of the deal, which is a combination of securitization of ijarah, murarabahah and Istisna contracts with a minimum of 51% on the Ijara assets.

The certificate holders will be entitled to receive periodic profit distribution. The Citigroup Global Markets Limited acted as the lead arranger and the market-maker for the issue, which is rated 'AAA' by S&P and 'AA' by Fitch based on the credibility and the financial strength of the guarantor of the issue.

(*Pls. see Appendix 3 for the Structure)*
(Please see Appendix 4 – Table 5 - Islamic Development Bank (IDB) Trust Certificates)

10.5 Qatar Global Sukuk

Estimated at US$ 500 million, the issue was issued by Qatar Global Sukuk, a Special Purpose Vehicle. It is the first global Islamic bond offering by the State of Qatar. HSBC Amanah acted as the lead arranger and the market maker for the issue which is rated A+ by Standard &Poor's.

(Please see Appendix 2 for the structure)

11. Conclusion.

Despite the fact that several successful attempts have been made so far to address the problem of liquidity in Islamic banks much need to be done for an effective way in solving the liquidity issues in Islamic banks. Reinforcing cooperation among Muslim countries supportive of Islamic banking can help in solving the problem. This is better done through the existing institutions such as the IIFM.

At the same time there is a need of close cooperation between IIFM and Central Banks especially those of member countries. One proposal is to make it mandatory for all market issue in member countries to carry IIFM Sharia'a endorsement. Another proposal is for Central banks to make IIFM endorsed instruments eligible instruments for Islamic banks' reserve requirement. Additionally, Central banks may also hold certain eligible sukuks as part of their reserve management portfolio.

From these initial initiatives, the demand for Sharia'a compatible products among all financial intermediaries will grow, thereby creating an active Islamic capital market that can provide a viable alternative to conventional market.

25 September 2003

Appendix 1- Commodity Murabahah

General structure and responsibility of the various parties to a commodity murabahah are as follow:

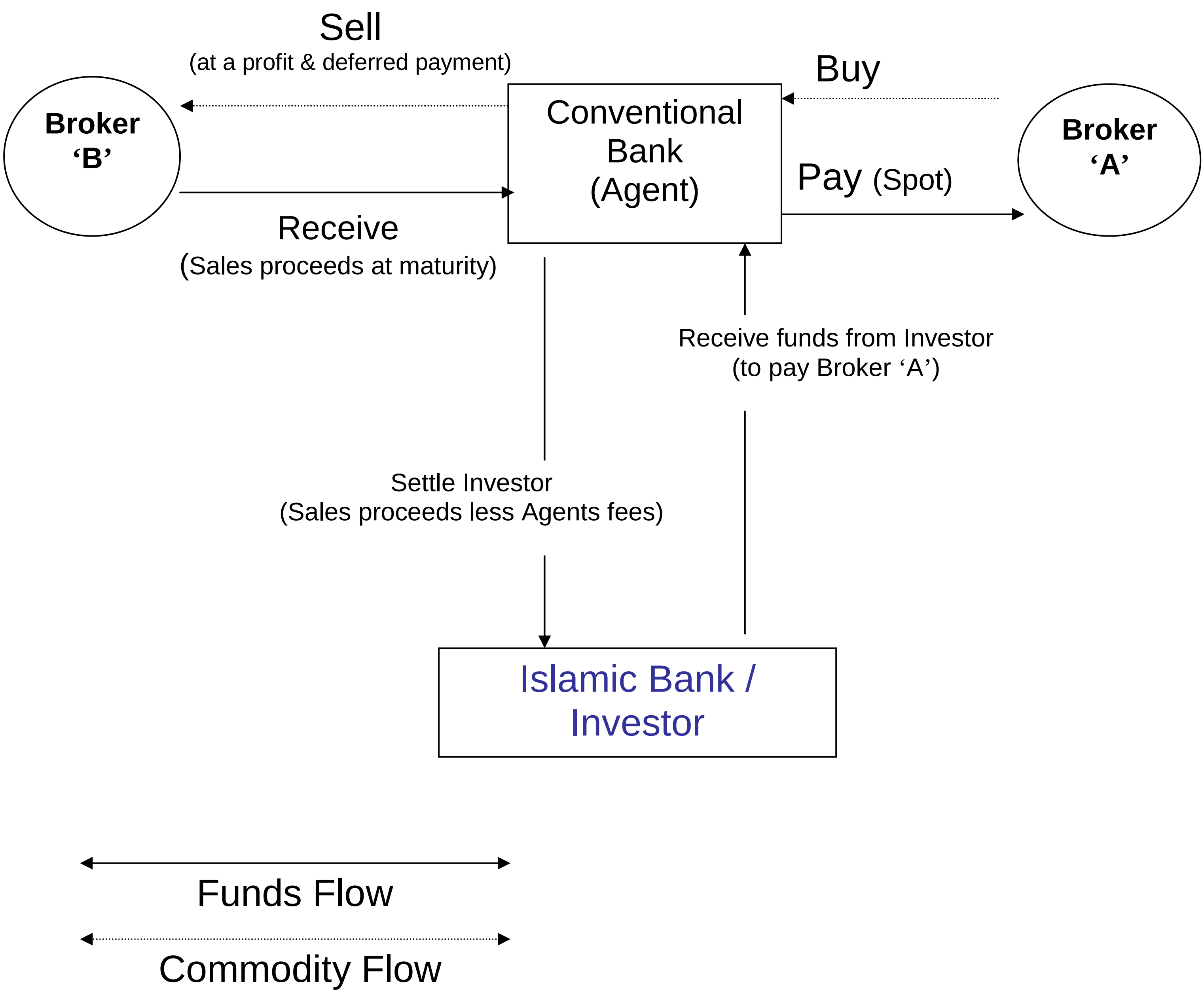
1. An Islamic bank instructs a conventional bank as agent to invest say US 10 million for one month.
2. Acting as an agent, the conventional bank buys a commodity from a broker A, value spot on behalf of the Islamic bank. The commodity is then credited to the conventional bank's bank account with broker A. The conventional bank will credit broker As dollar account with US 10 million and this account will accrue return to build up to the deferred payment amount.
3. Value spot, the conventional bank (acting as an agent on behalf of the Islamic bank) sells the commodity at cost plus mark-up on a deferred payment basis (one month) to Broker B. The commodity is debited to the Conventional bank's account with broker B.
4. Broker B will sign an assignment of rights deed to assign the security of the funds to the conventional bank. This will allow the conventional bank to net off the amounts to Broker A with the amount payable to broker B. A similar assignment of rights will allow Broker A and Broker B to net off the conventional bank's commodity positions with them, value spot.
5. On maturity (in one month) the conventional bank pays to the Islamic bank profit (mark up) plus the original investment of US 10 million.
6. Commission will be payable to the conventional bank as agent (approximately 25 basis points) and to the commodity brokers (approximately $50 per 1 million of the commodity) on buying and selling the commodities. These commissions will be built into the price quoted to the Islamic bank are not accounted for separately.[8]

[8] [8] Bahrain Monetary Agency, *Islamic Banking and Finance in the Kingdom of Bahrain*, Bahrain Monetary Agency, 2002, p.30.

Appendix 1- Commodity Murabaha

The Commodity Murabaha Contract Structure

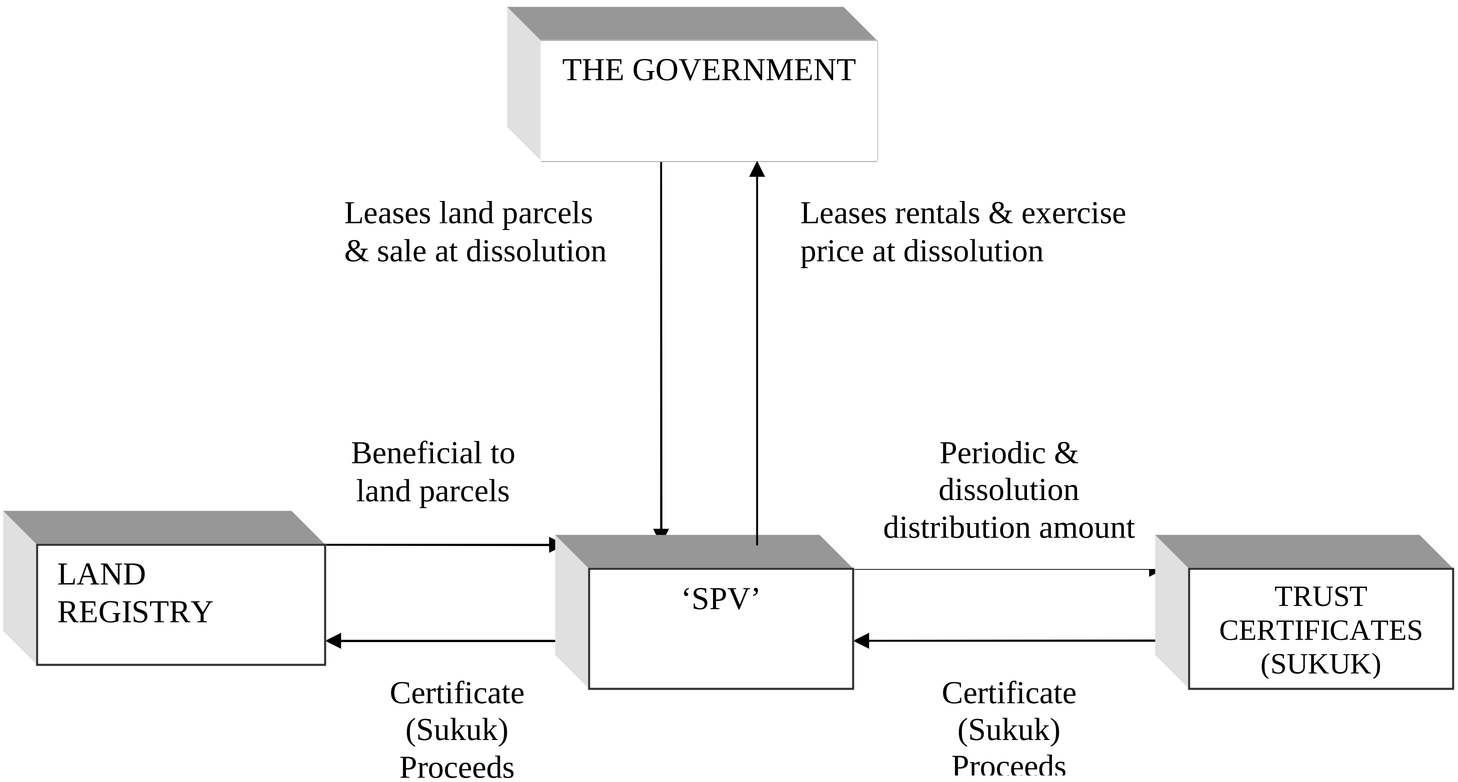
A commodity Murabaha is a Islamically acceptable short term inter-bank deposit/placement instrument



Appendix 2

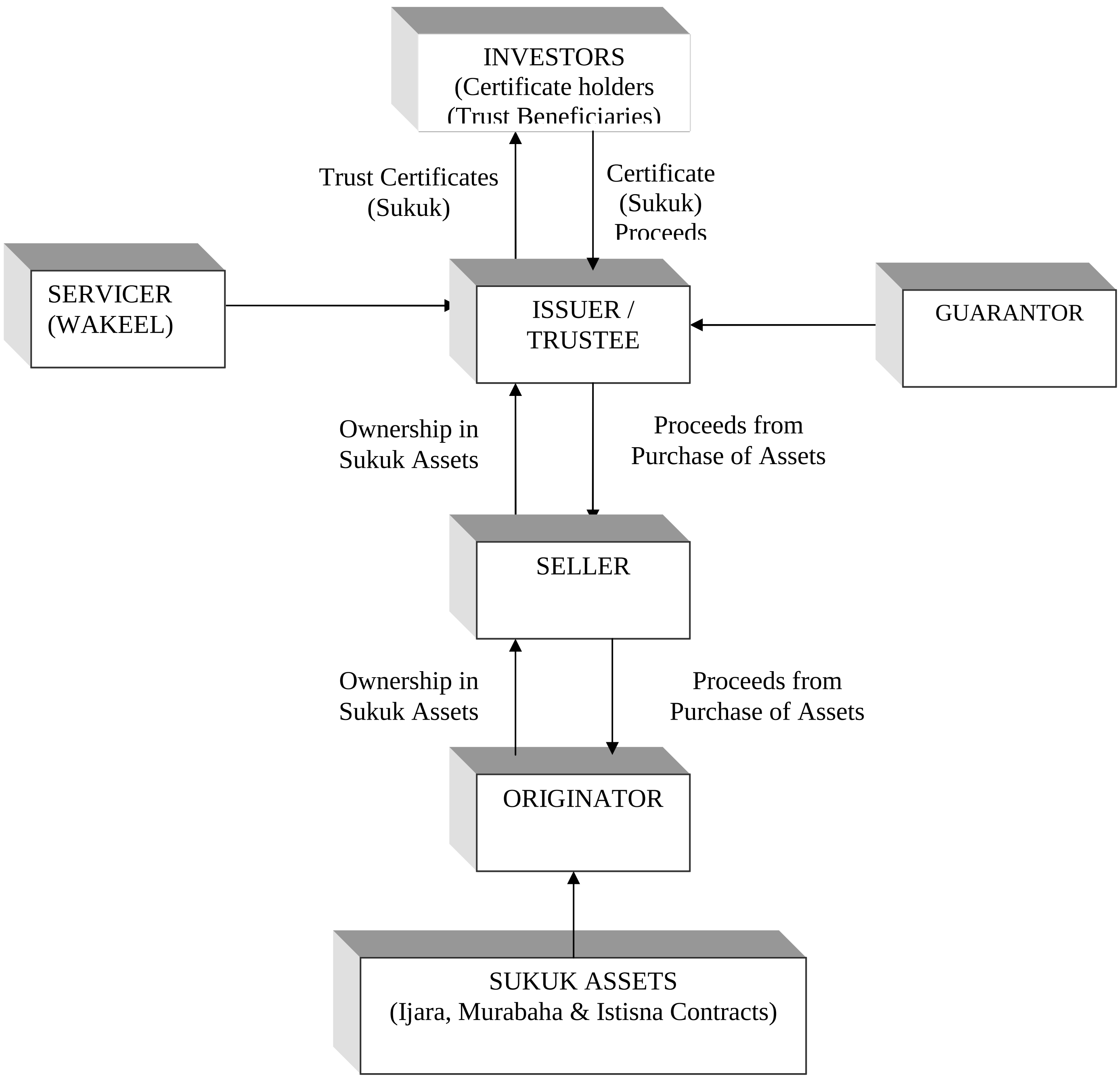
IJARAH SUKUK STRUCTURES

The Malaysian, Bahraini and Qatari sukuk al-ijarah have all are similar structure



Appendix 3

GLOBAL SUKUK STRUCTURES
IDB Trust Certificates



Appendix 4

Table 1 – Bahrain Sukuk al Ijara

Country	Issuer	Type	Value	Maturity
Bahrain	Bahrain Monetary Agency	Sukuk al-ijara (1)	US$100 million	4 September 2006
Bahrain	Bahrain Monetary Agency	Sukuk al-ijara (2)	US$70 million	27 January 2005
Bahrain	Bahrain Monetary Agency	Sukuk al-ijara (3)	US$80 million	29 August 2007
Bahrain	Bahrain Monetary Agency	Sukuk al-ijara (4)	US$50 million	19 November 2005
Bahrain	Bahrain Monetary Agency	Sukuk al-ijara (5)	US$80 million	27 August 2007
Bahrain	Bahrain Monetary Agency	Sukuk al-ijara (6)	US$ 100 million	2 April 2008
Bahrain	Bahrain Monetary Agency	Sukuk al-ijara (7)	US$250 million	May 2008

Table 2 – Bahrain Sukuk al Salam

Country	Issuer	Type	Value	Maturity
Bahrain	Bahrain Monetary Agency	Sukuk Al Salam (23 issues up to April 2003	US$ 625 Million (cumulative)*	91 days for each issue

Appendix 4

Table 3 – Malaysia Global Sukuk

Country	Issuer	Type	Value	Maturity
Malaysia	Ministry of Finance, Malaysia	Global Islamic Ijarah Sukuk	US$ 600 Million	June 2007

Table 4 – First Global Sukuk

Country	Issuer	Type	Value	Maturity
Malaysia	Kumplan Guthrie Bhd.	Ijara Sukuk	US$ 150 Million	2006

Table 5 – Islamic Development Bank (IDB) Trust Certificates

Country	Issuer	Type	Value	Maturity
Multilateral Institution	The Issuer: Solidarity Trust Services Ltd., Guarantor: (Islamic Development Bank (IDB)	Combination of Ijara, Murabaha and Istisna Sukuk, (with minimum 51% Ijara Sukuk)	US$ 400 Million	July 2008

Table – 6 MALAYSIA ISLAMIC INTER-BANK MONEY MARKET (IIMM)

(RM billions)

	Mudarabaha Inter-bank investments	Green Bankers Acceptances	Islamic Accepted Bills	BNM Negotiable Notes-1	BII Investment Issues-1
2000	283.6	13.6	4.7	0	0
2001	241.2	19.5	3.9	1.2	2.5
2002	247	17.2	7.6	2.2	5.9

Source: Bank Negara Malaysia